

Application Serial No. 10/698,192
Group Art Unit 3748

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A supercharger, comprising:

a shaft having an axis of rotation;

a gearcase comprising a primary gear housing section and a removable gear housing section;

wherein the primary gear housing section and removable gear housing section meet at a location that is substantially parallel to the shaft axis of rotation;

wherein the primary gear housing section and removable gear housing section include semicircular recesses that provide an opening in the supercharger dimensioned to receive the shaft.
2. (Original) The supercharger of claim 1, wherein the location is substantially coplanar with the axis of rotation of a drive shaft or an impeller shaft.

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3. (Previously presented) The supercharger of claim 1, wherein the location is selected from a group consisting of: a substantially flat plane formed between the primary gear housing section and removable gear housing section, and a substantially flat surface formed between the primary gear housing section and removable gear housing section.

4. (Canceled)

5. (Original) The supercharger of claim 1, further comprising a lubrication reservoir disposed within the supercharger.

6. (Original) The supercharger of claim 5, wherein the lubrication reservoir is separate and detachable.

7. (Original) The supercharger of claim 5, wherein the lubrication reservoir includes a heat transfer element.

8. (Canceled)

9. (Canceled)

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10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

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21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

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31. (Withdrawn) An impeller, comprising:
a first set of blades having a first height;
a second set of blades having a second height; and
a third set of blades having a third height;
wherein the first height is greater than the second height, and the
second height is greater than the third height.

32. (Withdrawn) The impeller of claim 31, wherein the blades are
disposed at substantially equal circumferential intervals about the impeller.

33. (Withdrawn) The impeller of claim 31, wherein the impeller further
comprises a fourth set of blades having a fourth height, wherein the third height is
greater than the fourth height.

34. (Withdrawn) The impeller of claim 31, wherein the impeller comprises
an inlet region having a blade count that is less than the blade count of an outlet
region.

35. (Withdrawn) The impeller of claim 34, wherein the blade count
comprises a number of blades having a blade portion that extends into an impeller
region.

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36. (Canceled)

37. (Canceled)

38. (Canceled)

39. (Canceled)

40. (Canceled)